

A refractory dielectric may be combined with the spinel, the amt. of spinel being at least 51 wt. % pref. dielectrics are SiO₂, MgO, Al₂O₃, kaolin, pyrophyllite, bentonite and talc. A pref. spinel contains about 28 wt. % MgO and 72 wt. % Al₂O₃ or MgO and Al₂O₃ in a mol ratio of 1:1.

USE/ADVANTAGE - With e.g. a cable or thermocouple sensor having a centre conductor, sheath and ceramic insulation (claimed). Spinel component provides high resistance, to high temp. and pressure, hard neutron radiation, and corrosive environments.

CHOSEN-DRAWING: Dwg.1/3

TITLE-TERMS:

CERAMIC INSULATE MINERAL INSULATE ELECTRIC COMPONENT COMPRIZE
SPINEL MAGNESIUM
ALUMINATE OPTION COMBINATION REFRACTORY DIELECTRIC

DERWENT-CLASS: K08 L02 L03 S03 X12

EPI-CODES: S03-B01A; X12-D03D; X12-D07B; X12-E01A;

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1993-044671

Non-CPI Secondary Accession Numbers: N1993-077027

DERWENT-ACC-NO: 1993-101242

DERWENT-WEEK: 199312

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TITLE: Ceramic insulation for use in a mineral insulated electrical component
- comprises spinel esp. magnesium aluminate opt. combined with a refractory dielectric

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PATENT-ASSIGNEE: AMERICAN TECHNOLOGY INC [AMTEN]

PRIORITY-DATA: 1992US-0911164 (July 9, 1992) , 1991US-0756610
(September 9,
1991)

PATENT-FAMILY:

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|---------------------------|----------------|----------|
| PAGES MAIN-IPC | | |
| WO 9305520 A1 H01B 003/12 | March 18, 1993 | E 029 |
| AU 9225822 A H01B 003/12 | April 5, 1993 | N/A 000 |

DESIGNATED-STATES: AT AU BB BG BR CA CH CS DE DK ES FI GB HU JP
KP KR LK LU MG M
N MW NL NO PL RO RU SD SE AT BE CH DE DK ES FR GB GR IE IT LU MC
NL OA SE

CITED-DOCUMENTS: DE 839664; JP60214295 ; US 4200077 ; WO 9014671

APPLICATION-DATA:

| PUB-NO | APPL-DESCRIPTOR | APPL-NO |
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| APPL-DATE | | |
| WO 9305520A1 September 1, 1992 | N/A | 1992WO-US07456 |
| AU 9225822A September 1, 1992 | N/A | 1992AU-0025822 |
| AU 9225822A N/A | Based on | WO 9305520 |

INT-CL_(IPC): G01K007/02; G21C017/00 ; H01B003/12 ;
H01B013/06

ABSTRACTED-PUB-NO: WO 9305520A

BASIC-ABSTRACT: Ceramic insulation comprises a spinel.

| L Number | Hits | Search Text | DB | Time stamp |
|-------------|--------|--------------------------------|--|---------------------|
| - | 261843 | mineral | USPAT; US-PGPUB; EPO; JPO; DERWENT USPAT; US-PGPUB; EPO; JPO; DERWENT USPAT; US-PGPUB; EPO; JPO; DERWENT USPAT; US-PGPUB; | 2001/11/27 12:56 |
| - | 47758 | kaolin | EPO; JPO; DERWENT USPAT; US-PGPUB; EPO; JPO; DERWENT USPAT; US-PGPUB; | 2001/11/27 12:56 |
| - | 20192 | mineral and kaolin | EPO; JPO; DERWENT USPAT; US-PGPUB; EPO; JPO; DERWENT USPAT; US-PGPUB; | 2001/11/27 12:56 |
| - | 614245 | cable | EPO; JPO; DERWENT USPAT; US-PGPUB; EPO; JPO; DERWENT USPAT; US-PGPUB; | 2001/11/27 12:56 |
| - | 273 | (mineral and kaolin) and cable | EPO; JPO; DERWENT | 2001/11/27 15:30 |